

In the Claims

The listing of claims will replace all prior versions and listing, of claims in the application:

Listing of Claims:

1-26. (Canceled)

27. (New) A substance that specifically binds at least one of the N-terminal domain of Vpr (amino acids 17-34) or its functional fragment or its derivative, the nuclear localization signal (NLS) of Vpr or its derivative, the HIV-1 protein Tat or its NLS, or the ARM sequence of Tat.
28. (New) The substance of claim 27 that specifically binds the N-terminal domain of Vpr (amino acids 17-34) or its functional fragment or its derivative, the nuclear localization signal (NLS) or Vpr or its functional fragment or its derivative, or the ARM sequence of Tat.
29. (New) The substance of claim 27 that specifically binds the HIV-1 protein Tat or its NLS or the ARM sequence of Tat.
30. (New) The substance of claim 27 that specifically binds the N-terminal domain of Vpr (amino acids 17-34) or the nuclear localization signal (NLS) of Vpr, or functional fragments or derivatives of said molecule.
31. (New) The substance of claim 27 that specifically binds the HIV-1 protein Tat or its NLS.
32. (New) The substance of claim 27 that specifically binds the ARM sequence of Tat.

33. (New) The substance according to claim 27, wherein said substance, or fragments thereof, is selected from any one of a naturally occurring, synthetic or recombinant antibody, scFv, Fv, Fab', Fab, diabody, linear antibody, F(ab'), antigen binding fragment of an antibody, a protein, a peptide and a small molecule.
34. (New) The substance according to claim 33, wherein said substance is a scFv.
35. (New) The substance according to claim 34, wherein said scFv is a recombinant scFv.
36. (New) The substance according to claim 28, wherein said substance has a CDR3 region having an amino acid sequence of any one of SEQ. ID. NO. 1, SEQ. ID. NO.3, and SEQ. ID. NO.5.
37. (New) The substance according to claim 36, wherein said amino acid sequence is encoded by the nucleic acid sequence of SEQ. ID. NO. 2, SEQ. ID. NO.4, and SEQ. ID. NO. 6.
38. (New) The substance according to claim 29, wherein said substance is the p8 protein of the fd bacteriophage.
39. (New) The substance according to claim 38, wherein said substance is a bacteriophage fd p8-derived peptide.
40. (New) The substance according to claim 39, wherein said peptide has the amino acid sequence as denoted by SEQ. ID. NO.16.
41. (New) A composition comprising at least one substance, wherein said substance is as defined in

claim 27, and optionally further comprising pharmaceutically acceptable diluents, additives and carriers.

42. (New) A method of specifically inhibiting the import of a NLS-containing molecule into a nucleus of a cell, by contacting said cell with at least one substance as defined in claim 27.
43. (New) A method of inhibiting the import of Vpr into the nucleus of a cell, by contacting said cell with at least one substance as defined in claim 30.
44. (New) A method of inhibiting the import of Tat into a nucleus of a cell, by contacting said cell with at least one substance as defined in claim 29.
45. (New) A method of inhibiting the import of the pre-integration complex (PIC) into a nucleus of a cell, by contacting said cell with at least one substance as defined in claim 30.
46. (New) A method of inhibiting viral infection by administering at least one substance as defined in claim 27 to an organism in need.
47. (New) The method according to claim 46, wherein said organism is any one of a plant and a mammal.
48. (New) A method of inhibiting cell proliferation, oncogenesis and autoimmune response, by administering at least one substance as defined in claim 27 to an organism in need.
49. (New) The method according to claim 48, wherein said organism is a mammal.

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Page 7

50. (New) A method of conferring immunity against a viral infection, by administering to a subject in need a substance as defined in claim 27.